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| 10/684,504 | 10/15/2003 | Fabrice Le Leannec | 01807.002409. | 4600 |

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

| EXAMINER |
|---|
| MOTSINGER, SEAN T |

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| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/684,504 | LE LEANNEC ET AL. |
| | Examiner | Art Unit |
| | Sean Motsinger | 2624 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on <u>10/15/2003</u>.

2a) ☐ This action is **FINAL**.  2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) <u>1-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3, 10-22, 25-38</u> is/are rejected.

7) ☒ Claim(s) <u>4-9, 23-24</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>3/25/2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some * c)☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/12/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## *Rejections under 35 U.S.C. 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1.     Claim 35 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer program per se is not statutory subject matter.

## *Rejections Under 35 U.S.C. 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3,10,11,15, 20, 22, 25, 26, 30, 35, 36, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Deshpande et al., "HTTP Streaming of JPEG2000 Images", Procedings International Conference on Information Technology: Coding and Computer, PP 15-19.

2.     Re Claim 1,  Deshpande discloses, A method of selecting data of a compressed digital signal comprising a plurality of levels of spatial granularity

of data, in a communication network comprising at least two communication

apparatuses connected together by the network, the digital signal being

available at least at one, so-called first, of the communication apparatuses,

the data being adapted to be transmitted from the first apparatus (i.e. server)

to the other, so-called second, communication apparatus (i.e. client), and that

data being sufficient to reconstitute a spatial part of the signal termed region

of interest which is specified at the second apparatus, (See page 16, column

1, paragraph 4). Note this provides for sending region of interest of a image

from a server to client. Characterized in that the method comprises the

following steps: determining at least one level of spatial granularity of data as

a function of the region of interest and of the structure and organization of the

data in the signal. (See page 17 column 1 last paragraph and column 2 first

paragraph and page 18 column 1 last paragraph column 2 first paragraph).

Note on page 17 that a tile is parsed corresponding to spatial granularity such

that a particular spatial granularity can be requested. Furthermore on page 18

discloses choosing a spatial granularity to send based on a region of interest.

Selecting data for each determined level of granularity as a function of the

region of interest and of the structure and organization of the data in the

signal. ( See page 18 column 1 last paragraph; column 2, first paragraph).

Note data only the data necessary for the region of interest is selected and

streamed based on spatial granularity.

3.      Re claim 3, Deshpande further discloses, wherein determining at least one

level of spatial granularity and selecting data are also performed as a function

of at least one characteristic of the network and/or of at least one

characteristic of at least one of the first and second communication

apparatuses. (See page 16, column 2, paragraph 4.) Note that determining at

least one level of spatial granularity and selecting data are done such that

only the required data parts are sent. (See page 18, column 1, last paragraph;

column 2, first paragraph.)

4.      Since only required parts are sent to reduce delay (i.e. the network client

and sever have limited speed for transmitting data), determining at least one

level of spatial granularity and selecting data are preformed as a function of at

least one characteristic of the network and/or of at least one characteristic of

at least one of the first and second communication apparatuses.


5.      Re claim 10, Deshpande further discloses, wherein the steps of

determining and selecting are carried out by the second communication

apparatus. (See page 17, column 2, last paragraph;  page 18, column 1, first

paragraph.) Note the client (second communication apparatus) controls

identifying the precincts and code blocks needed (ie determining granularity

and selecting data).


6.      Re claim 11 Deshpande further discloses, a step of transmitting

commands to the first communication apparatus specifying data of different

levels of spatial granularity which have been selected, each command specifying data of the signal at a level of granularity which has been determined. (see page 17, column 1, last paragraph; column 2, second paragraph.) Note that the image is parsed so that data corresponding to a particular level of spatial granularly can be requested. Therefore there must be some command to specify retrieval of the data.

7.     Re claim 15 Deshpande further discloses, wherein the compressed digital signal is an image signal comprising at least one tile having at least one resolution level, each resolution level comprising at least one precinct constituted by at least one code-block, which is located in the different frequency sub-bands of the resolution level considered and which corresponds to the same spatial position in the image signal. (See page 16, column 2, last paragraph; page 17 column 1 first paragraph.)

8.     Re claim 20-35. Claims 20-35 contains only means for type limitations invoking 35 U.S.C. 112 6th paragraph. The means for limitations have been interpreted to be two communication apparatuses configured to perform the function as described following the "means for" statement. (See page 13 lines 20-25 of applicants disclosure.) Since Deshpandes device is also configured on two-communication devices (see figure 1), for the rejected claims examiner will demonstrate the function these two communication devices are configured to perform.

9.      Re Claim 20, (See rejection of claim 1.) Claim 20 is written as a means

for performing the method of claim 1. Therefore the two communication

devices of Deshpandes will be configured to perform the method of claim 1.

10.     Re Claim 22, (See rejection of claim 3.) Claim 22 is written as a means for

performing the method of claim 3. The two communication devices of

Deshpandes will be configured to perform the method of claim 3.

11.     Re Claim 25, (See rejection for claim 10.) Claim 25 is written as the

means for performing the method of claim 10. The two communication

devices of Deshpandes will be configured to perform the method of claim 10.

12.     Re Claim 26, (See rejection for claim 11.) Claim 26 is written as the

means for performing the method of claim 11. The two communication

devices of Deshpandes will be configured to perform the method of claim 11.

13.     Re claim 30, (See rejection for claim 15.) Claim 30 is written as the means

for performing the method of claim 15. The two communication devices of

Deshpandes will be configured to perform the method of claim 15.

14.     Re claim 35, Deshpandes further discloses a communication apparatus,

characterized in that it comprises a device for selecting data according to

claim 20. (See page 17, column 2, last paragraph; page 18 column 1 last

paragraph.) Note the client (communication apparatus) is configured to select

data according to claim 20.


15.    Re claim 36 Deshpande further discloses an information storage means

which can be read by a computer or a microprocessor containing code

instructions of a computer program for executing the steps of the method of

selecting data according to claim 1. Note that the method of Deshpande is

intended to perform on computers therefore such and information storage

device must exist.


16.    Re claim 38 Deshpande further discloses, a computer program which can

be loaded into a programmable apparatus, characterized in that it contains

sequences of instructions or portions of software code for implementing the

steps of the method of selecting data according to claim 1, when this

computer program is loaded and executed by the programmable apparatus.

Note that the method of Deshpande is intended to perform on computers

therefore such a program must exist.


### Rejections Under 35 U.S.C. 103


The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claim 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of D. Taubman "The JPIK Protocol (JPEG 2000 Interactive Kakadu)", The JPIK Protocol, November 30 2001, pp 1-22.

18. Re Claim 2 Deshpande discloses all of the elements of claim 1. However it does not disclose a prior step of determining a set of data necessary to satisfy the request and not yet received by the second communication apparatus, taking into account the data received previously by that apparatus, the determination of at least one level of spatial granularity depending on that set of data. However, this step is disclosed in page 3 second paragraph of Taubman. Taubman discloses the idea of remembering the image data that has already been sent and sending only the necessary data. The motivation to do this, also found in page 3 second paragraph of Taubman, is to avoid sending data twice. Thefore it would have been obvious to combine Deshpande with the teachings of Taubman to determining a set of data necessary to satisfy the request and not yet received by the second communication apparatus, taking into account the data received previously by

that apparatus and to make the determination of at least one level of spatial

granularity depending on that set of data.

19.     Re Claim 21 Deshpande discloses all of the elements of claim 20.

Deshpande does not disclose means for determining a set of data necessary

to satisfy the request and not yet received by the second communication

apparatus, taking into account the data received previously by that apparatus,

the determination of at least one level of spatial granularity depending on that

set of data. However, this element is disclosed in page 3 second paragraph of

Taubman.  Taubman discloses the idea of remembering the image data that

has already been sent and sending only the necessary data. The motivation

to do this, also found in page 3 second paragraph of Taubman, is to avoid

sending data twice. Thefore it would have been obvious to combine

Deshpande with the teachings of Taubman to configure the communication

apparatuses to determining a set of data necessary to satisfy the request and

not yet received by the second communication apparatus, taking into account

the data received previously by that apparatus and to make the determination

of at least one level of spatial granularity depending on that set of data.

20.     Claims 12, 13, 16, 19, 27, 28, 31,34 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Deshpande in view of Boliek et al. US PGPUB

2003/0018818.

21.    Re claim 12 Deshpande discloses all of the steps of claim 1. Deshpande

does not disclose wherein the steps of determining and selecting are carried

out by the first communication apparatus. However this characteristic would

be obvious in view of paragraph 83 of Boliek. Boliek discloses the use of a

smart server and dumb client as opposed to a dumb server and smart client.

Here the client gives a region of interest (defined by tiles and layers in Boliek

see paragraph 67) and the server does all of the computation and locating of

files.  The motivation for using this environment is that it is "useful for less

powerful machines such as cell phones, PDAs, etc." is found in paragraph 26.

Therefore it would have been obvious to one of ordinary skill in the art to

perform computational steps of Deshpande such as determining and

selecting in server as disclosed in Boliek.


22.    Re Claim 13 Deshpende further discloses a step performed by the first

communication apparatus of storing data, which it has previously transmitted

to the second communication apparatus in response to one or more earlier

requests from the latter (see abstract).  The image data is available multiple

users (see abstract) so the data previously requested by the second

communication apparatus and transmitted is still stored on server (first

communication apparatus.)


23.    Re claim 16 Deshpande further discloses, wherein the step of

determining at least one level of spatial granularity of the data provides for

choosing between the precinct and a block. (See page 18 column 1 last paragraph; column 2 first paragraph.) Note that choosing between code blocks and precincts is provided. Deshpende does not disclose the option of choosing a tile as a level of spatial granularity. However Boliek discloses the idea of sending information about a region of interest in an image in tile size increments in paragraph 67. The motivation to combine also found in Boliek is the added ability to send images in tile size increments (See paragraph 67.). Therefore it would be obvious to one of ordinary skill in the art to combine choosing between to precinct and block with the capability of choosing a tile disclosed Bolike to achieve the capability of sending information in tile size increments.

24.     Re claim 19 Deshpande further discloses, wherein the step of determining at least one level of spatial granularity of the data provides for choosing between the precinct and a block. (See page 18 column 1 last paragraph; column 2 first paragraph.) Note that choosing between code blocks and precincts is provided. Deshpende does not disclose the option of choosing a tile as a level of spatial granularity. However Boliek discloses the idea of sending information about a region of interest in an image in tile size increments in paragraph 67. The motivation to combine also found in Boliek is the added ability to send images in tile size increments (See paragraph 67.). Therefore it would be obvious to one of ordinary skill in the art to combine choosing between to precinct and block with the capability of choosing a tile

disclosed Bolike to achieve the capability of sending information in tile size increments.

25.    Re claim 27 Deshpande discloses all of the elements of claim 20. Deshpande does not disclose wherein the means for determining and selecting form part of the first communication apparatus. However this characteristic would be obvious in view of paragraph 83 of Boliek. Boliek discloses the use of a smart server and dumb client as opposed to a dumb server and smart client. Here the client gives a region of interest (defined by tiles and layers in Boliek see paragraph 67) and the server does all of the computation and locating of files. The motivation for using this environment is that it is "useful for less powerful machines such as cell phones, PDAs, etc." is found in paragraph 26. Therefore it would have been obvious to one of ordinary skill in the art to configure the computational structure of Deshpande such as determining and selecting means in the server as disclosed in Boliek.

26.    Re Claim 28 Deshpende further discloses means for storing data, which the first apparatus has previously transmitted to the second communication apparatus, in response to one or more earlier requests from the latter (see abstract. The image data is available multiple users (see abstract) so the data previously requested by a second communication apparatus and transmitted is still stored on server (first communication apparatus.)

27.     Re claim 31 Deshpande further discloses, means for determining at least

one level of spatial granularity of the data provides for choosing between the

tile and the precinct. (See page 18 column 1 last paragraph; column 2 first

paragraph.) Note that choosing between code blocks and precincts is

provided. Deshpende does not disclose the option of choosing a tile as a level

of spatial granularity. However Boliek discloses the idea of sending

information about a region of interest in an image in tile size increments in

paragraph 67. The motivation to combine also found in Boliek is the added

ability to send images in tile size increments (See paragraph 67.). Therefore it

would be obvious to one of ordinary skill in the art to combine choosing

between to precinct and block with the capability of choosing a tile disclosed

Bolike to achieve the capability of sending information in tile size increments.


28.     Re claim 34 Deshpande further discloses, wherein the means for

determining at least one level of spatial granularity of the data provides for

choosing between the tile and the precinct. (See page 18 column 1 last

paragraph; column 2 first paragraph.) Note that choosing between code

blocks and precincts is provided. Deshpende does not disclose the option of

choosing a tile as a level of spatial granularity. However Boliek discloses the

idea of sending information about a region of interest in an image in tile size

increments in paragraph 67. The motivation to combine also found in Boliek is

the added ability to send images in tile size increments (See paragraph 67.).

Therefore it would be obvious to one of ordinary skill in the art to combine

choosing between to precinct and block with the capability of choosing a tile

disclosed Bolike to achieve the capability of sending information in tile size

increments.

29.    Claim 14, and 29 is rejected under 35 U.S.C. 103(a) as being

unpatentable over Deshpande in view of Boliek in further view of Taubman.

30.    Re Claim 14 Deshpande and Boliek disclose all of the the steps of claim

12 . They do not disclose a step performed by the first communication

apparatus (server), of receiving from the second communication apparatus

(client) information on the data which the latter has previously received in

response to one or more previous requests. However Taubman discloses this

step in page 3 paragraph 4. The motivation to perform this function is to

"enable the client to open a previously browsed image, whose contents have

been stored locally, informing the server of the elements which need not be

sent. Therefore it would have been obvious to one of ordinary skill in the art to

combine Taubman and Boliek with Deshpande to achieve the aforementioned

advantage.

31.    Re Claim 29 Deshpande and Boliek disclose all of the elements of claim

28 . They do not disclose in the first communication apparatus, means for

receiving from the second communication apparatus information on the data

which the latter has previously received in response to one or more previous requests. However Taubman discloses a communication apparatus configured to do this in page 3 paragraph 4. The motivation to have this means is to "enable the client to open a previously browsed image, whose contents have been stored locally, informing the server of the elements which need not be sent." Therefore it would have been obvious to one of ordinary skill in the art to combine Taubman and Boliek with Deshpande to achieve the aforementioned advantage.

32.    Claim 17, 18, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Boliek , and further in view of Prandolini et al. "JPEG 2000 Image Coding Syestem - Part 9: Interactivity tools, APIs and protocols – Final committee Draft, ISO/IEC JTC 1/SC 29/WG 1, August 7, 2003.

33.    Re claim 17, Deshpande and Boliek disclose all of the steps of claim 16. However they do not disclose use of the protocol JPIP for transmitting data between communication apparatuses. However Prandolini discloses a draft of a international standard (see Introduction page vii ) for JPIP. One would be motivated to combine Deshpande and Boliek with Prandolini to conform with international standards as the standards did not exist at the time of Deshpande and Boliek. Therefore one of ordinary skill in the art would have

found it obvious to combine Deshpande and Boliek with Prandolini to reach
the aforementioned advantage.

34.     Re Claim 18 Prandolini further discloses choosing between the tile and the
precinct amounts to choosing between JPT-STREAM and JPP-STREAM
media types for transmitting data in annex A page 9, Introduction page vii,
and JOIP symbols page 5. Note that JPT stream is used when sending tiles
and JPP stream is used when sending precincts. One would be motivated to
combine Deshpande and Boliek with Prandolini to conform with international
standards as The standards did not exist at the time of Deshpande and
Boliek. Therefore one of ordinary skill in the art would have found it obvious to
combine Deshpande and Boliek with  Prandolini to reach the aforementioned
advantage.

35.     Re claim 32, Deshpande and Boliek disclose all of the elements of claim
31. However they do not disclose use of the protocol JPIP for transmitting
data between communication apparatuses. However Prandolini discloses a
draft of a international standard (see introduction page vii)  for JPIP. One
would be motivated to combine Deshpande and Boliek with Prandolini to
conform with international standards as The standards did not exist at the
time of Deshpande and Boliek. Therefore one of ordinary skill in the art would
have found it obvious to combine Deshpande and Boliek with Prandolini to
reach the aforementioned advantage.

36.    Re Claim 33 Prandolini further discloses choosing between the tile and the

precinct amounts to choosing between JPT-STREAM and JPP-STREAM

media types for transmitting data in annex A page 9, Introduction page vii,

and JOIP symbols page 5. Note that JPT stream is used when sending tiles

and JPP stream is used when sending precincts.


37.    Claim 37 rejected under 35 U.S.C. 103(a) as being unpatentable over

Deshpande.


38.    Re claim 37 Deshpande discloses  information storage means which can

be read by a computer or a microprocessor containing code instructions of a

computer program for executing the steps of the method of selecting data

according to claim 1.  (See rejection for claim 36.)  Deshpande does not

disclose that these storage are partially or totally removable. However

examiner is taking official notice that it would have been obvious to put the set

of instructions on a CD (removable storage means.)  One would be motivated

to do this such that the instructions could be passed on to numerous

communication devices. Therefore one of ordinary skill in the art would have

found it obvious to combine the invention of Deshpande with a CD to reach

the aforementioned advantage.

### *Allowable Subject Matter*

39.     Claims 4-9 and 23-24 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including

all of the limitations of the base claim and any intervening claims.   Claim 4

contains allowable subject matter because no ratio of the quantity of data

received vs data required is used for determining granularity is disclosed in

any of the references cited by the examiner or found in the prior art. Claims 5-

9 contain allowable subject matter because they depend from a rejected base

claim. Claim 23, 24 contain allowable subject matter for the same reasons as

claim 4.

### *Conclusion*

40.     Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Sean Motsinger whose telephone number

is 571-270-1237.  The examiner can normally be reached on M-F.

41.     If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Jingge Wu, can be reached on 571-272-7429.  The

fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

JINGGE WU
SUPERVISORY PATENT EXAMINER

42.    Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system.  Status

information for published applications may be obtained from either Private

PAIR or Public PAIR.  Status information for unpublished applications is

available through Private PAIR only.  For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Motsinger
1/17/2007